

Summary report of stock use in wilderness meadows Sequoia and Kings Canyon National Parks, 2001

Summary

- Reported recreational and administrative stock use during the summer of 2001 totaled **8,169 stock nights**, or 9,986 animal unit nights. This represents an increase of 18% compared to 2000, which had a total of 6,971 stock nights reported.
- Administrative and commercial packers continue to account for the majority of packstock use in the two parks, accounting for 44% and 43% of reported use. Private users accounted for the remaining 13%.
- Relative to 2000, reported commercial use increased by 33%, while reported private use decreased by 1%. The increase in commercial use represents a recovery from the unusually low numbers reported for 2000, with most pack stations reporting average to slightly above average use during 2001. A notable exception to this trend was the Cedar Grove Pack Station, which reported a 78% increase over the previous five-year average of 632 nights.
- Administrative use increased by 10% over the previous year, with the trail crews accounting for the majority of this increase.
- Reported use of supplemental feed in lieu of grazing decreased slightly among commercial and private users, but use by administrative packers increased relative to 2000.
- Horses and mules remained the primary type of stock used, accounting for over 95% of total use. Llama use increased over that reported for 2000, but remained significantly below that reported for 1999. After a sharp increase in 1999, reported burro use returned to slightly below the five year average in 2001.

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Introduction

This document provides the 2001 annual summary of reported administrative and recreational saddle and packstock use of the wilderness meadows of Sequoia and Kings Canyon National Parks (SEKI). This information is collected via reporting forms that are distributed to commercial, private, and administrative stock users, and from the wilderness permit database. After each trip all stock users at SEKI are required to provide the information requested on these forms.

Data on stock use of the wilderness meadows of SEKI has been collected in one form or another for over fifty years. In 1986, a standardized approach with accompanying computer database was initiated, and this method, although modified, is still in use today. From this database, yearly summary statistics are prepared and presented in tabular and graph form, and comparison with past years use is presented.

Methods

At the beginning of each field season (May) all commercial and administrative stock users of the wilderness at SEKI are provided forms to document their trips. Private stock users are given a "Stock-Use Card" along with the issuance of their wilderness permit. All stock users are required to respond to the information requested on these forms, which includes:

- 1) Name of packer
- 2) Date of trip
- 3) Packer classification (commercial, administrative, or private)
- 4) Type of stock used
- 5) Number of stock
- 6) Number of people
- 7) Name and location of forage areas where stock grazed
- 8) Number of nights spent in each forage area
- 9) Name of party on wilderness permit

After each trip these forms are completed and returned to the meadow monitoring specialist at SEKI and the information is then entered into a database. This year's database file is named "**stock01.mdb**", and contains over 525 records of various private, commercial, and administrative overnight stock trips.

In previous years (prior to 1998) there was some confusion over the terminology used to calculate use levels presented in the annual stock use report. It appears as though the term stock night had been used interchangeably with animal unit night, and it was not always clear which unit was being referred to. The following definitions are intended to help clarify these terms and to set the stage for the data that follow in the rest of the report.

Conventionally, an overnight stay by a pack animal is defined in terms of a common currency, the **animal unit night**. An **animal unit** is equal to approximately 1,000 pounds of grazing animal; an animal unit night refers to an overnight stay by that animal. In range management almost everything is compared to cows, which at approximately 1,000 pounds are rated at 1.00 animal unit night. According to this system, an overnight stay by a horse or mule is defined as 1.25 animal unit nights. An overnight stay by a burro is 0.50 of an animal unit night, and a llama is 0.35 of an animal unit night. The use of animal unit nights reflects the variation in forage consumed by these different sized animals, and allows for comparison with other grazing systems. An adult horse consumes approximately 25% more forage than an adult cow in a 24 hour period, a llama consumes 35% of that of a cow, and a burro about 50%. Thirty animal unit nights are equal to one **animal unit month** (AUM) which is the amount of dry forage required by one animal unit for one month based on a standardized forage allowance of 26 pounds per

day. The use of these standardized units allows range managers to compare use across systems and to establish grazing capacities based on the varying consumption of forage by different types of animal.

For the purposes of this report, and to make the data accessible to all users, a **stock night** represents an overnight stay by any pack animal, without reference to the more conventional animal unit night. In order to facilitate comparison between years, the statistics that follow are reported in stock nights. Where the data allow, summary figures are reported in both animal unit and stock nights in order to provide as much information as possible. **When referring to earlier reports, note that there may be discrepancies in the numbers reported due to use of different terminology.** Discussions of grazing capacity, as in the annual Residual Biomass Monitoring Report, always rely on the more conventional animal unit night.

The following figures represent overnight visits by stock only, they do not include stock use from day trips, or drop trips which were completed in one day.

Results

User compliance. Of the 19 commercial pack stations operating in Sequoia and Kings Canyon during 2001 (three concessioners, 16 Incidental Business Permit (IBP) holders), five submitted their annual stock use reports by the October 31 due date specified in their contract or permit. Another six submitted their reports within one month after the deadline. Six responded after two months had passed and after receiving phone calls requesting the data. The remaining two pack stations failed to respond to repeated requests. Note that because of these missing reports, this document under-reports commercial use (and hence total stock use) for 2001. The availability of ranger observations made it possible to record a limited number of the unreported nights, but these represent only a subset of their actual use.

Of the 28 trips made by private parties during 2001, eight users returned their cards without further prompting at the end of the season. The remaining trips were documented by cross referencing staff observations with the wilderness permit database. As during 2000, our ability to identify private vs. commercial users was enhanced by having permit issuers note the type of user on the permit at the trailhead.

Reported use. Reported recreational and administrative stock use during the summer of 2001 totaled **8,169 stock nights**, or 9,986 animal unit nights. This represents an increase of 18% compared to 2000, which had a total of 6,971 stock nights reported. Relative to 2000, reported commercial use increased by 33%, while reported private use decreased by 1%. Administrative use increased by 10%.

The following statistics describe 2001 stock use by stock type, user type, month, and forage area; and compares that use with past years for which data are available. The letter next to the year indicates the type of snow pack winter (d=dry, n=normal, w=wet) that preceded the field season. According to the amount of moisture in the snowpack, we categorize a year as one of the following:

- 1) **Dry** (less than 50% of average precipitation)
- 2) **Normal** (51% to 150% of the average precipitation)
- 3) **Wet** (more than 150% of the average precipitation)

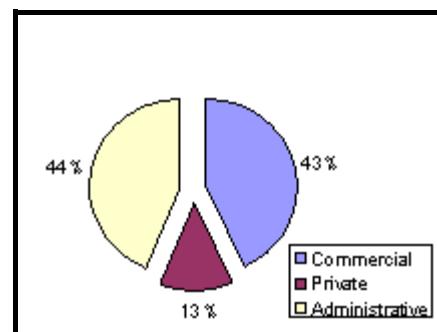
The snowpack is the best indicator we have of the amount of moisture the meadows received. Meadow opening dates for a particular season are adjusted based on snowpack in the high country during the preceding winter.

2001 was a normal year in the southern Sierra Nevada, with a May 1 snowpack ranging from 57% to 91% of normal in Sequoia and Kings Canyon drainages. Consequently, most passes were snow-free and stream crossings relatively manageable at the start of the season. Opening dates for the majority of backcountry meadows were in line with the normal year

guidelines.

Types of use. Use is divided into three categories: **Commercial** users are people or companies that pack in stock as a paid service. Companies or individuals of this type are required to hold a commercial operators license with the park. **Private** use is packing done by an individual or with his or her friends or family. Only a standard backcountry permit is required for this type. **Administrative** users are those that are employed by the National Park Service and who use pack stock in order to carry out their official duties.

2001	%	Stock Nights	Animal Unit Nights	Animal Unit Months
Commercial	43	3,514	4,248	142
Private	13	1,061	1,246	42
Administrative	44	3,594	4,493	150
TOTAL	100	8,169	9,986	333



Supplemental feed. Reported use of supplemental feed (hay, pellets or grain packed in lieu of grazing) decreased slightly from 281 stock nights in 2000 to 267 stock nights in 2001. Although administrative use increased sharply during 2001, commercial users continued to report proportionally more use of supplemental feed than private or administrative users.

Reported use (stock nights) of supplemental feed by user group 1997 - 2001 .

	2001	2000	1999	1998	1997
Commercial	168	250	51	256	99
Private	2	4	26	39	12
Administrative	97	27	0	44	31
TOTAL	267	281	77	339	142

Historical Use (1955 to present). Reported use of stock at Sequoia & Kings Canyon National Parks from 1955 to the present is listed below. Information from years prior to 1955 likely exists but has yet to be located and summarized. As new information arises it will be incorporated into subsequent reports. Refer to **Table 1** and **Figure 1**. It is important to note that these reflect *reported* use; due to inconsistencies in reporting, these may be quite different from actual use.

Administrative grazing at the Ash Mountain pastures is not included in these figures. Up to 90 horses and mules may be grazing at Ash Mountain at any one time. Over the years, grazing at these pastures has ranged from approximately 300 to 700 AUM's or 8000 to 21000 animal unit nights per year. In most years, almost all of the park stock spend the winter (November to May) at the Pixley Wildlife Refuge in the San Joaquin Valley, returning to the Ash Mountain Pasture in early spring.

TABLE 1. Historical Reported Stock Use at Sequoia and Kings Canyon National Parks. The letter next to the year indicates the type of snowpack year it was: w=wet, n=normal, d=dry. **Stock Nights** refer to an overnight stay by an animal regardless of type. **Animal Unit Months (AUM's)** are calculated by dividing the number of days in a month (30) into the number of animal unit nights; to calculate animal unit nights, multiply this figure by 30 (see text for definition).

YEAR	Commercial			Private			Administrative			Total	
	Stock Nights	%	AUMs	Stock Nights	%	AUMs	Stock Nights	%	AUMs	Stock Nights	AUMs
2001n	3514	43	142	1061	13	42	3594	44	169	8169	333
2000n	2648	38	98	1062	15	41	3261	47	136	6971	275
1999n	3467	45	134	974	12	40	3339	43	139	7780	313
1998w	1806	36	66	1039	21	41	2131	43	89	4976	196
1997n	3703	40	146	2969	33	113	2429	27	101	9101	360
1996n	3608	54	148	953	14	37	2147	32	89	6708	274
1995w	2746	52	115	1449	27	60	1128	21	23	5323	222
1994d	5328	56	213	1743	18	70	2431	26	101	9502	384
1993w	4200	54	140	1256	16	42	2362	30	79	7818	261
1992d	6112	55	204	1988	18	66	3007	27	100	11107	370
1991n	6619	59	221	1547	14	52	3036	27	101	11202	374
1990d	7947	62	265	1864	14	62	3084	24	103	12895	430
1989d	6810	55	227	1530	12	51	3990	31	133	12330	411
1988n	7350	60	245	1770	14	59	3210	26	107	12330	411
1987d	6000	51	200	2430	21	81	3300	28	110	11730	391
1986w	4500	48	150	1860	20	62	2940	32	98	9300	310
1985n	4530	56	151	1980	24	66	1620	20	54	8130	271
1984	4530	45	151	2700	27	90	2910	28	97	10140	338
1983	3420	41	114	3180	38	106	1740	21	58	8340	278
1982	4740	43	158	3120	28	104	3150	29	105	11010	367
1981	6120	51	204	1950	16	65	3870	32	129	11940	398
1980	3870	41	129	3060	32	102	2550	27	85	9480	316
1979	4110	41	137	3120	31	104	2790	28	93	10020	334
1978w	3390	36	113	2700	29	90	3360	35	112	9450	315
1977d	4860	38	162	4500	35	150	3540	28	118	12900	430

YEAR	Commercial			Private			Administrative			Total	
	Stock Nights	%	AUMs	Stock Nights	%	AUMs	Stock Nights	%	AUMs	Stock Nights	AUMs
1976d	5790	38	193	4110	27	137	5400	35	180	15300	510
1975n	7650	40	255	6060	31	202	5610	29	187	19320	644
1974n	8730	55	291	2850	18	95	4260	27	142	15840	528
1973w	9600	67	320	1050	7	35	3630	26	121	14280	476
1972d	10770	69	359	570	4	19	4200	27	140	15540	518
1971n	10500	67	350	570	4	19	4500	29	150	15570	519
1970n	14940	66	498	780	3	26	7050	31	235	22770	759
1969w	9540	60	318	240	2	8	6000	38	200	15780	526
1968n	13980	66	466	720	3	24	6360	30	212	21060	702
1967n	10230	69	341	540	4	18	4110	27	137	14880	496
1966d	15420	69	514	930	4	31	6000	27	200	22350	775
1965n	14520	67	484	1920	9	64	5130	24	171	21570	719
1964n	14550	74	485	1560	8	52	3600	18	120	19710	657
1963n	0	0	0	0	0	0	3900	100	130	3900	130
1962n	15000	78	500	0	0	0	4200	22	140	19200	640
1961d	24990	80	833	1890	6	63	4200	14	140	31080	1036
1960n	22920	87	830	1500	6	50	1980	8	66	26400	880
1958n	20280	69	676	4230	15	141	4500	16	150	29010	967
1956n	32820	83	1094	2190	6	73	4350	11	145	39360	1312
1955n	35490	79	1183	3180	7	106	6150	14	205	44820	1494

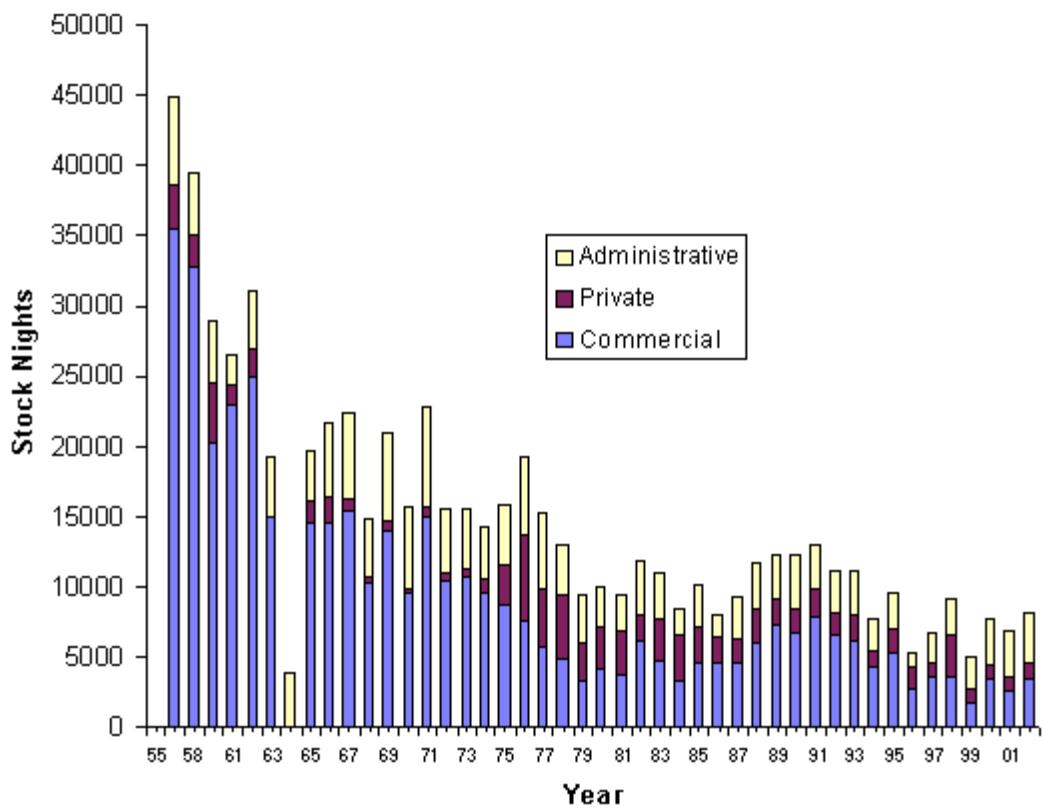
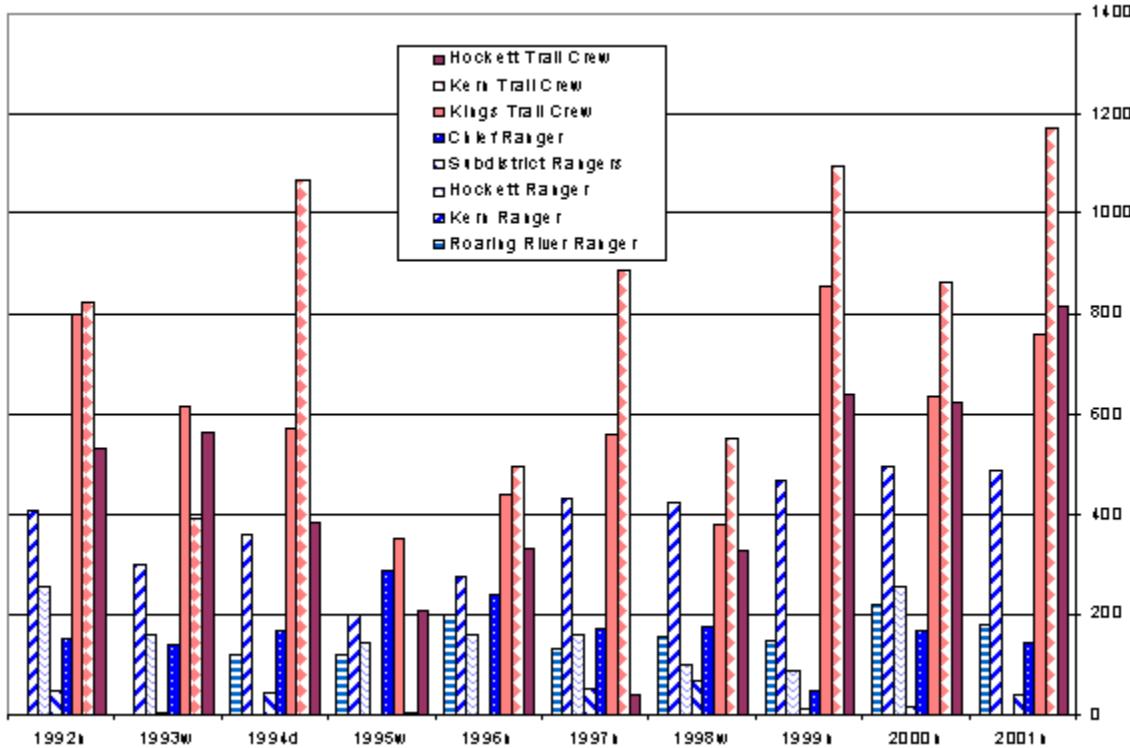


Figure 1: Reported Stock Use in Wilderness Meadows of Sequoia and Kings Canyon National Parks, 1955-2001.

Administrative Use (Stock nights). This includes all reported use by National Park Service personnel in the wilderness meadows. It does not include Ash Mountain grazing.

ADMINISTRATIVE USE										
	2001n	2000n	1999n	1998w	1997n	1996n	1995w	1994d	1993w	1992n
Cedar Grove Rangers	0	2	0	15	51	0	0	0	0	0
Grant Grove Rangers	0	2	0	51	0	0	0	0	0	0
Hockett Ranger	0	253	86	100	159	160	142	0	160	254
Hockett Trail Crew	816	622	637	325	41	330	208	384	565	531
Kern Trail Crew	1172	861	1093	552	888	494	3	1068	391	820
Kern Ranger	489	492	465	425	429	274	200	360	300	407
Kern Subdistrict Ranger	40	10	12	0	0	0	0	44	4	48
Kings Trail Crew	756	634	854	378	558	440	351	569	616	798
Roaring River Ranger	177	218	147	154	133	200	120	120	0	0
Squad Trip	72	95	na	102	90	108	86	166	140	110
Miscellaneous	74	72	45	74	80	130	202	0	0	39
TOTAL	3596	3261	3339	2176	2429	2136	1312	2711	2176	3007

Administrative Stock Use by User



Commercial Use (Stock Nights). These numbers include those nights where supplemental feed was provided. Totals for previous may also include use reported by stations no longer conducting business in Sequoia and Kings Canyon National Parks.

PACKER	COMMERCIAL USE (Stock Nights)										
	2001n	2000n	1999n	1998w	1997n	1996n	1995w	1994d	1993w	1992d	1991n
Balch Park	193	222	156	154	431	259	71	313	124	206	158
Bishop Pack Outfitters	134	35	329	48	139	158	246	60	0	0	0
Cedar Grove PS	1127	528	887	427	669	651	573	1202	1090	1159	1642
Clyde Pack Outfits	0	8	17	0	14	16	48	29	86	19	28
Cottonwood PS	247	233	104	84	285	282	46	32	270	525	832
D & F Pack Station	0	60	0	0	0	0	110	0	0	0	0
Glacier Pack Train/Stewart	0	0	0	7	42	0	0	77	115	14	0
Golden Trout PS	68	79	641	62	391	147	18	207	79	116	144
High Sierra PS	235	202	109	74	154	174	32	83	113	206	223
Horse Corral PS	408	161	176	30	212	231	114	834	450	855	609
Leelin Llama Treks	60	9	24	140	0	0	0	0	0	0	0
Llamas of Circle Home	0	0	0	8	28	14	0	0	0	0	0
Lost Valley Camp PS, Ross	65	54	62	89	41	89	23	161	80	158	36
Mineral King PS	151	166	8	80	111	524	643	1112	845	1393	1939
Muir Trail Ranch	3	4	23	26	7	8	14	24	6	28	44
Natl. Outdoor Leadership School	0	33	0	0	0	0	0	0	0	0	0
Pine Creek PS/ Berner	0	18	0	0	4	68	20	75	57	308	15
Rainbow Pack Outfitters	0	62	na	28	77	174	116	0	0	0	0
Red's Meadow PS	82	174	0	0	52	0	0	90	114	125	290
Rock Creek PS - Whitney Pack Train	636	176	607	416	683	365	266	791	417	738	533
Sequoia K ings Pack Train	36	4	29	41	91	389	406	0	0	0	0
Three-Corner-Round	0	420	110	0	90	0	0	0	90	0	0
Trailhead & Co. (Llamas)	0	0	185	92	85	55	0	0	0	0	0
Windrider Llama Treks	0	0	0	0	36	0	0	0	0	0	0
Wolverton Pack Station	5	0	0	0	0	0	0	0	0	0	0
Wyman, Bill	64*	0	0	0	0	0	0	0	0	0	0
TOTAL	3292	2648	3467	1806	3624	3608	2746	5328	4200	6112	6619

*Reported as private use in previous years

Types of Stock. Horses and mules have remained the primary type of stock used in 2001, with burros and llamas making up a small percentage of total use.

Year	Horses/Mules		Burros		Llamas	
	Stock	Nights %	Stock	Nights %	Stock	Nights %
2001n	7,892	96.6	162	2.0	115	1.4
2000n	6376	91.4	500	7.2	95	1.4
1999n	7,370	94.7	189	2.4	221	2.8
1998w	4,572	91.8	143	2.9	261	5.3
1997n	8,469	93.1	141	1.5	491	5.4
1996n	6,641	99.7	0	0	67	0.3
1995w	5,279	99.2	36	0.6	10	.002
1994d	9,120	98.5	257	1.1	125	0.4
1993w	7,427	95.0	212	2.7	179	2.3
1992d	10,808	97.3	222	2.0	77	0.7
1991n	11,002	98.2	171	1.5	29	0.2
1990d	12,485	96.8	354	2.7	56	0.4

Monthly Use and Percentage of Entire Season, May-October

	May		June		July		August		Sept.		Oct.	
	Nights	%	Nights	%								
2001n	6	0.1	536	6.6	2190	26.8	3730	45.7	1418	17.4	289	3.5
2000n	0	0	1134	16.3	2005	28.8	2492	35.7	1240	17.8	100	1.4
1999n	0	0	663	8.5	2133	27.4	3243	41.7	1537	19.8	204	2.6
1998w	0	0	67	1.3	508	10.2	2762	55.5	1439	28.9	64	1.3
1997n	8	0.08	574	6.3	2012	22.1	3739	41.1	1750	19.2	257	2.8
1996n	0	0	351	5.2	1749	26.1	2929	44.0	1431	21.3	248	3.7
1995w	0	0	0	0	312	4.7	2565	38.5	2135	32.1	311	4.7
1994d	6	0.02	647	6.8	2691	28.3	4348	45.8	1766	18.6	44	0.5
1993w	0	0	110	1.4	1109	14.2	4103	52.5	2271	29.0	225	2.9
1992d	3	0.03	1175	10.6	3748	33.7	4137	37.2	1911	17.2	133	1.2
1991n	7	0.1	706	6.3	3581	31.9	4860	43.4	1755	15.7	293	2.6
1990d	39	0.3	1019	7.9	4017	31.2	5645	43.8	1739	13.5	33	0.3

Number of Areas Receiving Use. The number of areas used may be used as an indication of the dispersion of grazing. Variation in the number of areas used, however, may also reflect differences in reporting. Use was reported for a total of 110 forage areas in 2001, compared to 115 in 2000 (a list showing the number of commercial, private, and administrative stock grazing nights for each forage area is presented in Appendix 2). **Commercial** users reported grazing in a total of 71 areas, **private** parties in 49 areas, and **administrative** users in 46 areas.

The number of forage areas utilized by user group for the past eleven years:

	<u>Commercial</u>	<u>Private</u>	<u>Administrative</u>	<u>Overall</u>
2001n	71	49	46	110
2000n	73	57	55	115
1999n	63	31	46	92
1998w	52	43	35	93
1997n	73	92	44	135
1996n	91	27	33	107
1995w	60	62	17	96
1994d	105	76	37	139
1993w	93	66	35	120
1992d	87	59	37	117
1991n	87	69	34	117
1990d	97	82	52	136

Areas of High Use. Based on reported stock nights, the following forage areas received heavy use in 2001. In previous years, heavy use was defined as use exceeding 75% of the estimated carrying capacity of a meadow. Until the system of estimating carrying capacity of these meadows is further developed and refined, heavy use will be defined based solely on the amount of use an area receives. Note that forage areas differ in their ability to withstand use and thus may be heavily used but not overgrazed. These meadows should, however, be watched closely for signs of deterioration.

The **ten** areas most heavily used (total number of stock nights) in 2001 by **each** user group (commercial, private, and administrative) are presented in the following three tables. The fourth table shows the twenty five forage areas that received the heaviest use overall (by all user groups combined).

Number of commercial stock nights in the ten areas receiving the heaviest commercial use in 2001.

Meadow	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992
83-4 Upper Crabtree Meadow	307	111	229	0	273	100	23	143	94	235
70-5 Big Wet Meadow	212	6	62	0	0	4	0	29	0	139
80-3 Tyndall Creek Meadows	190	134	144	20	128	58	38	123	38	193
55-1 Woods Creek Jct Mdw	175	25	80	0	54	10	0	226	0	0
66-3 Junction Meadow	161	142	58	40	155	20	64	168	173	130
33-1 Evolution Meadow	140	161	167	178	187	220	255	107	176	282
58-1 Castle Domes Meadow	122	0	78	108	0	15	0	261	65	58
90-10 South Fork Meadow	118	122	60	0	20	193	71	0	33	216
46-1 Upper Basin Meadows	113	48	39	0	0	5	0	0	14	0
67-1 East Lake	105	44	101	125	156	129	47	16	70	181

Number of private stock nights in the ten areas receiving the heaviest private use in 2001.

Meadow		2001	2000	1999	1998	1997	1996	1995	1994	1993	1992
72-8	Sugarloaf Meadow	128	122	207	85	148	98	105	49	115	141
69-5.1	Scaffold Meadow Tourist Pasture	102	139	139	76	46	233	48	142	71	73
71-3.1	Lower Ranger Meadow	82	40	87	0	10	0	0	18	0	0
58-2	Woods Creek Crossing	63	0	0	24	0	0	0	0	0	30
70-4	Cement Table Meadow	55	145	34	32	14	28	12	15	48	44
71-1	Austin Camp Meadows	50	24	0	12	16	48	0	0	86	0
33-1	Evolution Meadow	42	6	9	0	0	0	0	0	2	0
86-2	Upper Funston Meadow	37	48	63	13	36	32	78	70	25	65
80-3	Tyndall Creek Meadows	37	3	22	9	10	0	12	5	4	0
90-15	Tuohy Meadow	33	0	0	0	0	0	6	14	0	0

Number of administrative stock nights in the ten areas receiving the heaviest administrative use in 2001.

Meadow		2001	2000	1999	1998	1997	1996	1995	1994	1993	1992
86-7	Lewis Camp Large Pasture	630	551	492	383	491	296	122	390	400	513
90-5.1	Hockett Meadow	342	79	374	264	10	161	41	252	168	438
86-1	Kern Bridge Camp	257	37	168	5	88	94	8	94	50	100
69-5.1	Scaffold Meadow Tourist Pasture	205	189	163	115	165	170	193	56	71	10
86-3	Big Arroyo Confluence	168	0	108	0	0	0	0	0	3	0
89-3	Lower Lost Canyon Meadows	168	100	0	0	99	0	0	66	130	60
89-9	Middle Rattlesnake Canyon	152	48	5	133	4	142	0	6	27	92
79-1	Cold Springs Camp Area	151	72	0	88	0	0	0	132	86	76
51-1	Simpson Meadow	149	199	0	50	54	112	16	90	212	46
83-8	Sandy Meadow	130	144	108	143	176	168	0	0	0	0

The 25 most heavily used areas in 2001 for commercial, private and administrative use combined.

Meadow		2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
86-7	Lewis Camp Large Pasture	674	584	805	441	633	340	218	418	418	585	442
90-5.1	Hockett Meadow	342	81	380	267	36	281	238	451	343	693	286
69-5.1	Scaffold Meadow Tourist Pasture	324	354	401	191	313	526	248	392	297	149	253
80-3	Tyndall Creek Meadows	318	149	286	89	215	118	50	214	108	273	470
83-4	Upper Crabtree Meadow	309	129	244	12	325	100	23	150	118	282	276
70-5	Big Wet Meadow	275	21	83	6	17	4	18	29	18	139	124
86-1	Kern Bridge Camp	257	45	168	68	88	112	103	120	72	141	221
58-2	Woods Creek Crossing	202	0	44	108	68	8	0	60	126	68	208
85-10	Nathan's Meadow	199	147	55	84	39	57	0	168	87	259	269
55-1	Woods Creek Junction Meadow	190	45	80	0	58	22	15	9	0	0	0
66-3	Junction Meadow (Kings)	190	178	64	96	228	20	104	229	204	130	145
33-1	Evolution Meadow	188	167	176	178	187	220	255	168	370	698	181
51-1	Simpson Meadow	183	265	137	50	81	112	45	256	344	348	291
89-3	Lower Lost Canyon Meadows	181	100	0	0	99	0	0	71	130	60	0
71-3.1	Lower Ranger Meadow	177	89	121	0	10	0	0	36	0	0	0
86-3	Big Arroyo Confluence	168	4	108	0	10	4	6	0	7	0	0
89-9	Middle Rattlesnake Canyon	152	60	5	143	4	176	52	40	36	275	63
79-1	Cold Springs Camp Area	151	72	0	88	0	0	0	132	86	111	103
90-10	South Fork Meadow	138	140	60	30	122	288	145	450	109	303	359
86-8	Kern Station Small Pasture	134	106	101	80	130	46	32	72	46	87	0
83-8	Sandy Meadow	131	148	108	143	180	195	0	0	17	0	0
72-8	Sugarloaf Meadow	128	200	230	85	191	125	111	74	183	167	169
58-1	Castle Domes Meadow	122	4	78	228	17	29	2	145	65	68	4
86-2	Upper Funston Meadow	114	72	322	67	70	173	173	223	99	255	370
53-5	Fallen Moon Meadow	114	72	322	67	70	173	173	223	99	255	370

Discussion

Reported recreational and administrative stock use during the summer of 2001 totaled **8,169 stock nights**, or 9,986 animal unit nights. This represents an increase of 18% compared to 2000, which had a total of 6,971 stock nights reported. Relative to 2000, reported commercial use increased by 33%, while reported private use decreased by 1%. The increase in commercial use represents a recovery from the unusually low numbers reported for 2000, with most pack stations reporting average to slightly above average use during 2001. A notable exception to this trend was the Cedar Grove Pack Station, which reported a 78% increase over the previous five-years' average of 632 nights. Administrative use increased by 10%, with the trail crews accounting for the majority of this increase. Reported use of supplemental feed in lieu of grazing decreased slightly among commercial and private users, but use by administrative packers increased relative to 2000. Horses and mules remained the primary type of stock used, accounting

for over 95% of total use. Llama use increased over that reported for 2000, but remained significantly below that reported for 1999. After a sharp increase in 1999, reported burro use returned to slightly below the five year average.

Administrative use continued to be focused on meadows adjacent to stock supported ranger stations (Kern and Roaring River) and those areas serving as foci for trail crews during the season (Hockett Meadow, Kern Bridge Camp, Scaffold Meadow). Lewis Camp Large Pasture and Hockett Meadow received the greatest amount of administrative stock use, while administrative use of Big Arroyo Confluence and Lower Lost Canyon represented departures from areas regularly used by park packers over the past ten years.

Data management. Lack of response and/or a mechanism that elicits a response from private stock users remains a problem. During 2001, trailhead personnel were again asked to indicate on each permit whether it was being issued to a commercial or private stock group; this improved our ability to identify private users and thus limit the number of redundant information requests sent out to clients of commercial packers. As in 2001, commercial packers were also required to include the name of the client who received the permit so that we can better correlate field observations with reported use. Both of these practices will be continued in 2002.

Although most commercial pack stations submitted their annual reports after a single warning letter was sent, delayed IBP reports remain a significant factor in the delayed preparation date of this summary. Two IBP reports remain outstanding at this time, making it difficult to correlate use levels with conditions in a number of critical meadows.

As in previous years, we found that many U.S. Forest Service (USFS) wilderness permit issuing stations are not distributing SEKI stock-use cards to packers entering the Parks from USFS trailheads. As a result, some private packers are unaware of the requirement or procedures for reporting their stock use. Wilderness and trailhead rangers are asked to continue to use stock use observation forms, which are invaluable for verifying use reports and gaining a more realistic estimate of actual use for specific forage areas.

It is worth noting that under current practices, we have no reliable way of tracking commercial drop and/or spot trips which do not involve overnight stock use, leaving a gap in summaries of wilderness use. Ensuring that commercial packers who write wilderness permits submit copies of those permits to the park, along with their annual stock use reports, would address this issue.

In an effort to streamline the summary of stock use data and the preparation of this report, former NPS employee Adrian Das was contracted to automate the data analysis process in 2001. This proved very successful and will be used to update the stock use database as additional information comes in. Documentation for this project resides in the plant ecologists files. Most of the stock use data were entered this year by Rusty Coonfield while on furlough from the air operations program. For future reference, two weeks of technician time is required for data entry and quality assessment/control.

As this report relies on diverse sources of data, and as the author is certainly not immune to the making of errors, the reader is encouraged to submit corrections or comments regarding any questionable portions of this report. If you are aware of use that has not been captured, or if it appears that use has been either under or over reported, please do not hesitate to bring it to my attention. Even if it is not possible to determine the correct number, it is helpful to annotate areas of uncertainty wherever they occur. We will endeavor to update the stock use database as corrections are submitted.

Acknowledgements. We wish to thank all of the stock users who took the time to send in their reporting forms this year, and also the wilderness and trailhead rangers who kept track of stock use nights in their areas. We also appreciate the additional effort made by trailhead rangers to annotate permits for us, and by the wilderness office staff who set aside packstock related permits for us. This report would not have been completed in a timely matter were it not for the programming skills of Adrian Das and the data entry assistance provided by Rusty Coonfield.

Appendix 1. Samples of stock use reporting forms used during 2001; the small card is distributed to private parties with their wilderness permit, and is stamped and addressed for ease of return.

**OVERNIGHT STOCK USE REPORT
COMMERCIAL PACK STATIONS AND INCIDENTAL BUSINESS PERMIT
HOLDERS**

**Sequoia and Kings Canyon National Parks
47040 Generals Highway
Three Rivers, CA 93271**

User Type (circle one): Commercial Outfitter Private Party NPS Stock

Name of Pack Station or IBP holder:

Report prepared by: _____ Date: _____

Address: _____ Phone: _____

Please complete all requested information and mail to the Wilderness Office as soon as you finish your trip, or no later than October 31, 2001. Indicate if stock were not released to graze, but instead were tied and fed. Include information about types of stock used (llamas or burros) if you did not use horses or mules. Have a GREAT trip!!

cuserrep.frm

STOCK USE REPORTING CARD

Please circle one: Horses/mules

Sequoia and Kings Canyon National Parks

Please circle one: Commercial Packer

Burros

Llamas

Private Party

NPS Stock

Date	Forage Area Used That Night (name of meadow, camp, etc.)	Forage Area #	# of stock	# of nights	# of people

Form completed by (please print): _____ Date: _____

Address: _____ Phone: _____

One location per line. Please be specific in naming forage areas. Please return by Oct. 31.

Front:

UNITED STATES
 DEPARTMENT OF THE INTERIOR AN EQUAL OPPORTUNITY EMPLOYER
 NATIONAL PARK SERVICE
 SEQUOIA AND KINGS CANYON NATIONAL PARKS
 47050 GENERALS HIGHWAY
 THREE RIVERS, CALIFORNIA 93271

Official Business _____
 Penalty For Private Use \$300

Wilderness Office
 Sequoia and Kings Cyn National Parks
 47050 Generals Highway
 Three Rivers, CA 93271

Appendix 2: Reported Stock Use by Meadow Forage Area (including nights without grazing)
Commercial-Private-Administrative|Total Stock Nights

		2001	2000	1999	1998	1997	1996	1995	1994
28-1	Piute Creek	30-0-0 30	0-0-0 0	0-3-0 3	0-0-0 0	0-0-0 0	13-0-0 13	0-0-0 0	0-0-0 0
28-2	Aspen Meadow	6-0-0 6	0-0-0 0	28-0-0 28	50-0-0 50	11-0-0 11	12-0-0 12	0-0-0 0	2-0-0 2
28-3	Cony Camp	8-0-22 30	36-4-96 136	3-0-0 3	8-0-0 8	16-0-21 37	53-0-0 53	70-0-0 70	11-0-0 11
28-4	Franklin-Montgomery Mdw	30-0-12 42	9-0-0 9	35-0-0 35	11-0-0 11	8-0-0 8	15-0-0 15	8-0-0 8	16-0-0 16
28-6	Hell-For-Sure Jct Mdws	46-0-0 46	3-0-0 3	40-0-0 40	19-0-0 19	12-0-0 12	9-0-0 9	0-0-0 0	10-0-0 10
28-7	Upper Goddard Cyn	0-0-0 0	0-0-0 0	0-0-0 0	2-0-0 2	30-3-0 33	0-0-0 0	0-0-0 0	4-0-0 4
33-1	Evolution Meadow	140-42-6 188	161-6-0 167	167-9-0 176	178-0-0 178	187-0-0 187	220-0-0 220	255-0-0 255	168-0-0 168
33-2	McClure Meadow	43-3-32 78	72-10-12 94	73-6-15 94	19-0-0 19	53-31-0 84	22-0-0 22	0-0-0 0	22-0-0 22
33-3	Colby Meadow	30-7-0 37	48-3-0 51	39-0-10 49	13-0-0 13	65-0-0 65	40-0-0 40	58-12-0 70	71-0-0 71
33-4	Darwin Meadow	30-2-0 32	14-0-14 28	37-10-72 119	8-3-0 11	47-0-0 47	34-0-0 34	1-0-0 1	11-0-0 11
33-5	Lake 11,106	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
33-6	Darwin Bench	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
33-8	McGee Canyon	0-4-0 4	0-0-0 0	8-0-0 8	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	6-0-0 6
33-9	Emerald Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
34-1	Evolution Lake	0-0-0 0	0-0-0 0	12-0-0 12	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	10-0-0 10
34-2	Sapphire Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	5-0-0 5
34-3	Huxley Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
38-1	Upper Blue Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-80 80	0-0-0 0	0-0-0 0	0-0-0 0
38-2	Blue Canyon Meadow	0-0-0 0	0-0-0 0	5-0-0 5	0-0-0 0	0-0-0 0	0-0-0 0	30-0-0 30	0-0-14 14
38-3	Lower Blue Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	24-0-0 24
39-1	Upper LeConte Canyon	0-0-0 0	0-4-0 4	22-0-0 22	0-0-0 0	0-3-0 3	0-0-0 0	0-12-0 12	0-0-0 0
39-2	Big Pete Meadow	45-0-10 55	13-0-7 20	29-0-0 29	36-0-0 36	141-9-0 150	210-0-0 210	12-0-0 12	42-3-0 45
39-3	Little Pete Meadow	27-0-0 27	89-2-38 129	38-0-142 180	4-0-0 4	15-0-0 15	7-0-0 7	3-0-0 3	14-9-0 23
39-4	Ladder Camp	0-0-0 0	20-0-0 20	0-0-0 0	0-0-0 0	0-0-0 0	21-0-0 21	84-0-0 84	0-0-0 0
39-5	Grouse Meadow	0-0-18 18	9-10-5 24	22-0-87 109	4-0-0 4	84-3-198 285	25-0-96 121	0-0-0 0	12-0-55 67
39-6	Palisade Creek Junction	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
39-7	Stillwater Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
39-8	Deer Meadow	14-0-0 14	9-8-9 26	33-0-24 57	0-0-0 0	59-0-0 59	31-0-0 31	24-12-0 36	14-3-22 39
42-1	Dusy Creek	0-0-0 0	5-0-0 5	24-0-12 36	0-0-0 0	28-3-0 31	0-0-0 0	5-0-0 5	0-0-0 0
42-2	Lower Dusy Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
42-3	Upper Dusy Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0

		2001	2000	1999	1998	1997	1996	1995	1994
42-4	Rainbow Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
45-1	Palisade Lakes	0-0-0 0	0-4-0 4	22-0-0 22	0-0-0 0	28-3-0 31	15-0-0 15	0-0-0 0	0-0-0 0
46-1	Upper Basin Meadows	113-0-0 113	48-0-0 48	39-0-0 39	0-0-0 0	0-3-0 3	5-0-0 5	0-0-0 0	0-0-0 0
46-2	South Fork Kings River	27-0-0 27	0-4-16 20	0-0-12 12	0-0-22 22	26-0-11 37	53-0-24 77	0-12-0 12	25-3-77 105
46-3	Bench Lake/JMT Jct.	0-0-0 0	36-2-0 38	0-0-14 14	4-0-0 4	0-0-0 0	35-4-0 39	0-0-0 0	0-0-0 0
46-4	Bench Lake	7-0-0 7	0-4-0 4	49-0-0 49	0-0-0 0	98-0-0 98	0-0-0 0	0-0-0 0	43-0-0 43
46-5	Taboose Pass Area	0-0-0 0	0-0-0 0	0-0-0 0	6-0-0 6	0-0-0 0	0-0-0 0	16-0-0 16	0-0-0 0
46-6	Lake Marjorie	0-0-0 0	9-0-0 9	0-0-0 0	0-0-0 0	0-6-0 6	0-0-0 0	0-0-0 0	0-0-0 0
47-1	Cartridge Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-2	Lake Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-3	Marion Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-4	Cataract Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-5	Mdws SW of Bench Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-8	Muro Blanco	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
51-1	Simpson Meadow	34-0-149 183	66-0-199 265	122-15-0 137	0-0-50 50	27-0-54 81	0-0-112 112	5-24-16 45	154-12-90 256
51-2	Tehipite Valley	0-0-0 0	0-8-0 8	12-0-0 12	0-0-0 0	14-0-0 14	16-0-8 24	0-0-0 0	5-0-0 5
51-3	Gnat Meadow	0-0-0 0	8-0-0 8	0-0-0 0	0-0-0 0	0-0-42 42	0-0-0 0	18-0-0 18	0-0-0 0
51-4	Hay Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-1	Volcanic Lakes Basin	0-0-0 0	60-0-0 60	0-0-0 0	0-0-0 0	0-2-0 2	0-0-0 0	60-0-0 60	13-18-0 31
52-13	Jerkey Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-14	Upper end of Hotel Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-15	Hotel Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-2	Kennedy Canyon Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-3-0 3	0-0-0 0	0-0-0 0	13-0-0 13
52-3	Upper Kennedy Canyon Meadow	0-18-0 18	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-4	Kennedy Pass Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-5	West Kennedy Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-6	Frypan Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
53-1	Horseshoe Meadows	0-0-0 0	0-0-0 0	0-0-219 219	0-0-0 0	0-0-0 0	45-0-0 45	0-0-0 0	0-0-0 0
53-2	Horseshoe Lakes Turnoff	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
53-3	State Lakes Area	0-0-0 0	8-0-0 8	0-0-0 0	0-0-0 0	48-61-0 109	64-48-0 112	67-4-0 71	137-0-0 137
53-4.1	Dougherty Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
53-4.2	Glacier Valley Meadows	74-32-0 106	30-0-0 30	0-0-0 0	0-14-26 40	0-6-0 6	153-0-62 215	33-0-0 33	0-35-0 35

		2001	2000	1999	1998	1997	1996	1995	1994
53-5	Fallen Moon Meadow	87-27-0 114	0-0-0 0	89-0-18 107	0-0-40 40	7-24-9 40	4-0-0 4	44-4-54 102	49-5-15 69
53-6	Volcanic Trail Junction	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
53-7	Shorty's Meadow	97-0-0 97	40-4-0 44	138-10-0 148	6-0-0 6	59-0-0 59	47-0-0 47	144-0-0 144	36-3-16 55
53-8	Granite Pass Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-16-0 16	0-0-0 0
54-1	Granite Lake	0-0-0 0	0-0-0 0	0-0-0 0	8-0-25 33	0-2-0 2	0-6-0 6	0-0-0 0	55-28-0 83
54-2	Granite Basin Meadows	21-0-0 21	6-12-2 20	23-0-0 23	0-0-0 0	64-6-8 78	44-0-0 44	46-27-10 83	50-30-110 190
54-3	Grouse Lake	11-0-0 11	0-0-0 0	27-0-0 27	0-0-0 0	0-2-0 2	0-0-0 0	0-0-0 0	0-4-0 4
54-4	Halfmoon Meadow	0-18-0 18	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
54-5.1	Lower Tent Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-5-0 5
54-5.2	Upper Tent Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
55-1	Woods Creek Jct Mdw	175-0-15 190	25-0-20 45	80-0-0 80	0-0-0 0	54-4-0 58	10-0-12 22	0-0-15 15	9-0-0 9
55-2	U. Paradise Valley Mdw	0-0-0 0	0-0-0 0	0-0-0 0	5-0-0 5	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
55-3	L. Paradise Valley Mdw	0-0-0 0	0-4-0 4	0-0-0 0	0-0-0 0	0-8-0 8	0-0-0 0	0-0-0 0	0-0-0 0
56-1	Mdws S. of Pinchot Pass	13-0-0 13	57-0-0 57	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
56-2	Twin Lakes Area	0-1-98 99	7-4-0 11	0-0-0 0	0-0-134 134	18-3-0 21	13-1-0 14	6-4-0 10	78-6-0 84
56-3	White Fork Camp	13-0-0 13	0-0-0 0	0-0-0 0	68-0-0 68	0-0-0 0	0-0-9 9	0-12-0 12	0-0-0 0
57-1	Woods Lake Meadows	13-0-0 13	0-0-0 0	20-0-0 20	27-0-0 27	15-0-0 15	13-0-0 13	6-0-0 6	4-0-0 4
58-1	Castle Domes Meadow	122-0-5 127	0-4-0 4	78-0-0 78	108-120-0 228	0-0-17 17	15-2-12 29	0-1-0 1	107-27-11 145
58-2	Woods Creek Crossing	13-63-126 202	0-0-0 0	0-0-44 44	44-24-40 108	0-0-68 68	8-0-0 8	0-0-0 0	60-0-0 60
58-3	Baxter Creek Drift Fence	39-0-0 39	43-0-0 43	49-0-14 63	76-0-0 76	86-5-3 94	57-0-0 57	0-0-0 0	75-3-0 78
59-1	Baxter Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	5-0-0 5	0-0-0 0	3-0-0 3
59-2	Baxter Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
60-1	Gardiner Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
61-1	Cotter Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	18-0-0 18	0-0-0 0	0-0-0 0
61-2	Fjord Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
61-3	Lower 60 Lakes Basin Mdws	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	66-0-0 66
62-1	Rae Lakes Basin Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-2-0 2	0-0-0 0	0-0-0 0	0-0-0 0
62-2	Dragon Lake Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
63-1	Charlotte Creek Meadows	0-0-0 0	66-0-0 66	60-0-7 67	36-0-0 36	8-16-0 24	36-0-75 111	39-6-0 45	3-3-0 6
63-2	Charlotte Lake Lower Mdw	34-0-0 34	0-0-7 7	0-0-0 0	24-0-0 24	50-16-0 66	0-0-0 0	0-12-0 12	58-0-0 58
63-3	Charlotte Lake Upper Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-6 6	0-0-0 0	0-15-0 15	14-0-0 14

		2001	2000	1999	1998	1997	1996	1995	1994
64-1	Kearsarge Basin Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
64-2	Bullfrog Lake Meadows	0-5-0 5	0-0-0 0	0-0-0 0	0-0-0 0	0-16-0 16	0-0-0 0	0-0-0 0	0-0-0 0
65-1	Vidette Meadow	0-1-0 1	0-0-0 0	0-0-0 0	29-47-0 76	0-14-0 14	4-0-0 4	0-14-80 94	81-0-0 81
65-2	Middle Vidette Meadow	0-0-0 0	12-0-0 12	0-0-0 0	0-0-0 0	23-0-0 23	0-0-0 0	0-0-0 0	0-0-0 0
65-3	Upper Vidette Meadows	46-0-0 46	58-0-0 58	210-0-0 210	96-6-0 102	8-0-6 14	169-0-0 169	39-0-0 39	15-0-0 15
65-4	Upper Bubbs Creek	0-5-0 5	50-0-0 50	12-0-0 12	3-0-0 3	17-0-0 17	87-0-0 87	0-0-0 0	0-0-0 0
65-5	Center Basin	12-0-0 12	0-0-0 0	0-0-0 0	0-0-0 0	0-10-0 10	0-0-0 0	0-0-0 0	0-10-0 10
66-1.1	Sphinx Creek Junction	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-15-0 15	0-0-0 0
66-1.2	Angleworm Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
66-2	Charlotte Creek Confluenc	0-0-0 0	0-0-0 0	0-0-0 0	52-0-0 52	0-0-3 3	0-0-0 0	0-2-0 2	0-0-0 0
66-3	Junction Meadow	161-12-17 190	142-21-15 178	58-0-6 64	40-53-3 96	155-51-22 228	20-0-0 20	64-41-0 105	226-3-0 229
67-1	East Lake Meadow	105-5-0 110	106-0-0 106	101-0-0 101	125-12-0 137	156-11-3 170	129-0-0 129	47-44-0 91	16-46-0 62
67-2	Ouzel Meadow	0-0-0 0	0-0-0 0	0-0-0 0	107-0-0 107	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
67-3	Reflection Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
68-1	Sphinx Creek Crossing	0-0-0 0	0-2-0 2	0-0-0 0	0-12-0 12	17-0-0 17	4-0-0 4	60-0-0 60	46-0-0 46
69-2	West Side Roaring River	0-0-22 22	0-14-13 27	0-3-14 17	30-4-51 85	56-97-0 153	16-18-0 34	24-0-0 24	0-0-0 0
69-3	JR Pasture	0-2-27 29	0-0-49 49	0-0-47 47	0-0-23 23	0-24-18 42	5-0-20 25	0-0-0 0	0-0-0 0
69-4	Lackey Pasture	0-8-12 20	0-0-47 47	23-0-18 41	0-9-48 57	0-0-4 4	0-8-40 48	0-0-0 0	0-15-0 15
69-5.1	Scaffold Mdw Tourist Past	17-102-205 324	26-139-189 354	99-139-163 401	0-76-115 191	102-46-165 313	123-233-170 526	7-48-193 248	194-142-56 392
69-5.2	Grasshopper Meadow	48-0-8 56	30-0-12 42	0-0-0 0	0-0-0 0	0-14-2 16	0-0-0 0	7-0-0 7	0-0-0 0
69-6.1	Moraine Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
69-6.2	Moraine Stringers	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
69-6.3	Metrohyoy Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
70-1.1	Grasshopper Camp	0-0-22 22	0-27-0 27	0-0-0 0	0-18-3 21	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
70-1.2	Brewer Stringers	0-0-0 0	0-0-0 0	0-0-0 0	0-0-12 12	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
70-2	Barton Meadow and Stringe	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
70-3	False Cement Table Meadow	0-0-0 0	0-20-6 26	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
70-4	Cement Table Meadow	10-55-0 65	18-145-9 172	0-34-0 34	0-32-0 32	0-14-0 14	7-28-0 35	24-12-0 36	75-15-0 90
70-5	Big Wet Meadow	212-27-36 275	6-0-15 21	62-0-21 83	0-6-0 6	0-0-17 17	4-0-0 4	0-18-0 18	29-0-0 29
70-6	Grand Palace Hotel	0-0-20 20	0-41-10 51	0-9-35 44	0-4-0 4	0-0-0 0	40-0-0 40	0-0-0 0	18-10-0 28
70-7	Colby Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-8 8

		2001	2000	1999	1998	1997	1996	1995	1994
71-1	Austin Camp Meadows	0-50-22 72	0-0-33 33	0-0-0 0	0-12-0 12	0-16-0 16	0-0-0 0	0-0-0 0	80-0-0 80
71-2	Grave Meadow	20-0-0 20	42-25-0 67	0-21-0 21	0-48-0 48	0-0-0 0	30-125-0 155	6-110-0 116	24-0-0 24
71-3.1	Lower Ranger Meadow	0-82-95 177	0-40-49 89	28-87-6 121	0-0-0 0	0-10-0 10	0-0-0 0	0-0-0 0	18-18-0 36
71-3.2	Middle Ranger Meadow	0-0-0 0	0-0-3 3	0-0-3 3	0-18-6 24	0-1-0 1	33-0-0 33	0-0-0 0	32-0-0 32
71-4	Upper Ranger Meadow	0-0-6 6	0-0-3 3	0-0-0 0	0-0-0 0	0-86-65 151	0-0-0 0	0-0-0 0	7-10-160 177
71-5	Upper Deadman Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	4-0-0 4	0-0-0 0	0-0-0 0	14-0-40 54
72-1	Pond Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-10	Sugarloaf Creek Camp	0-25-18 43	0-21-0 21	0-0-0 0	0-3-0 3	4-1-0 5	0-0-0 0	34-0-0 34	0-0-0 0
72-11	Honeymoon Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-12	Boggy Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-13	Crowley Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-14	Box Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-15	Ellis Meadow Area	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-16	Paradise Meadow Area	0-0-0 0	0-0-0 0	0-0-0 0	0-8-0 8	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-17	West Fork Ferguson Ck	0-0-0 0	0-0-0 0	0-0-0 0	0-12-0 12	0-0-0 0	0-0-0 0	0-0-0 0	50-144-0 194
72-18	Ferguson Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-70-0 70	0-0-0 0	0-0-0 0
72-19	Long Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-2	Catch'em Meadow	0-0-0 0	0-0-0 0	20-0-0 20	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-20	Lewistall Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-21	Little Jack Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-22	Scenic Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-3	Willow Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-10-0 10	0-0-0 0	0-0-0 0	0-0-0 0
72-4	Mitchell Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4
72-5	Quartz Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-6	Williams Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	4-0-0 4	0-12-0 12	23-3-0 26
72-7	Comanche Meadow	0-0-0 0	0-0-0 0	0-6-0 6	0-6-0 6	5-36-0 41	4-0-0 4	6-10-0 16	26-10-0 36
72-8	Sugarloaf Meadow	0-128-0 128	72-122-6 200	20-207-3 230	0-85-0 85	43-148-0 191	27-98-0 125	6-105-0 111	25-49-0 74
72-9	Little Sugarloaf Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	17-0-0 17	0-0-0 0	0-0-0 0
73-1	Sheep Camp Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	7-0-0 7
73-2	Seville Lake	0-0-0 0	0-0-0 0	20-0-0 20	0-4-0 4	18-32-0 50	0-0-0 0	0-9-0 9	0-2-0 2
73-3	Lovelace Cabin Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	14-0-0 14	0-0-0 0	0-0-0 0

		2001	2000	1999	1998	1997	1996	1995	1994
73-4	Lost Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-73-0 73	0-32-0 32	0-6-0 6	34-24-0 58
73-5	Ranger & Beville Lakes	42-0-0 42	0-10-0 10	0-0-0 0	0-0-0 0	28-20-0 48	0-0-0 0	0-8-0 8	27-0-21 48
74-1	Twin Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	16-12-0 28	0-0-0 0	0-0-0 0	0-0-0 0
74-2	Pattee Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
74-3	Clover Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-12-0 12	0-0-0 0	0-0-0 0	0-0-0 0
74-4	Cahoon Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
74-5	Silliman Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
74-6	Willow Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
75-1	Lone Pine Meadows	5-0-0 5	0-0-0 0	0-0-0 0	0-0-0 0	4-18-0 22	0-0-0 0	0-0-0 0	110-0-21 131
75-2	Tamarack Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-19-0 19	0-0-0 0	0-0-0 0	0-0-0 0
75-3	Table Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
76-1	Emerald Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
76-2	Pear Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
77-1	Bearpaw Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4	11-0-0 11	0-2-0 2	0-0-0 0
77-2	Little Bearpaw Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	10-0-0 10
77-3	River Valley	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	10-0-0 10
77-4	Granite Ck, Strawberry Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
77-5	Redwood Meadow	0-0-64 64	0-0-100 100	0-12-104 116	0-0-40 40	0-1-16 17	0-0-0 0	0-8-0 8	28-20-33 81
77-6	Cliff Creek	0-3-0 3	0-0-0 0	0-0-0 0	0-0-17 17	0-35-0 35	0-0-0 0	0-0-0 0	0-2-0 2
77-7	Pinto Lake Meadow	16-0-0 16	17-2-12 31	6-0-0 6	0-0-0 0	25-35-0 60	44-0-12 56	65-32-14 111	76-2-21 99
78-1	Hamilton Lakes	0-0-0 0	0-0-3 3	0-0-0 0	0-0-0 0	0-129-0 129	0-0-0 0	0-0-0 0	0-0-0 0
79-1	Cold Springs Camp Area	0-0-151 151	0-0-72 72	0-0-0 0	0-0-88 88	0-0-0 0	0-0-0 0	0-0-0 0	0-0-132 132
79-2	Milestone Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-6-0 6	0-5-0 5	0-0-0 0	0-0-0 0	87-14-0 101
79-3	Rockslide Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
79-4	Lower Kern-Kaweah River	16-0-0 16	0-0-228 228	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
79-5	Gallats Lake Meadows	0-0-0 0	0-0-9 9	0-0-0 0	0-0-0 0	0-12-0 12	0-0-0 0	0-0-0 0	0-0-0 0
79-6	Upper Kern-Kaweah River	0-0-52 52	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	39-0-0 39
80-1	Bighorn Plateau Lake Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
80-2	Tyndall Ck/JMT Frog Ponds	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
80-3	Tyndall Creek Meadows	190-37-91 318	134-3-12 149	144-22-120 286	20-9-60 89	128-10-77 215	58-0-60 118	38-12-0 50	123-5-86 214
80-4	Sheep Camp Meadows	4-0-0 4	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	70-0-0 70	20-0-0 20	0-0-0 0

		2001	2000	1999	1998	1997	1996	1995	1994
80-5.1	Lake South America	0-0-0 0	0-6-0 6	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-17-0 17
80-5.2	Lake S. Americal Col Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
80-6	Kern Headwaters	0-0-0 0	72-0-0 72	0-0-0 0	0-0-0 0	0-5-0 5	0-0-0 0	60-0-0 60	78-0-0 78
81-1	Wright Creek Drainage	104-0-0 104	9-0-0 9	24-10-0 34	0-6-0 6	38-0-0 38	0-0-0 0	48-0-0 48	0-14-0 14
81-2.1	Wallace Ck/JMT Jct Mdw	5-1-0 6	0-0-0 0	0-0-0 0	0-0-0 0	0-10-0 10	0-0-0 0	44-0-0 44	0-0-0 0
81-2.2	Wallace Creek Meadows	14-0-0 14	0-0-0 0	114-0-0 114	0-0-0 0	0-24-0 24	42-0-0 42	0-0-0 0	112-15-0 127
81-2.3	Wallace Ck Waterfall Mdw	0-0-0 0	0-0-0 0	5-0-0 5	0-0-0 0	0-0-0 0	40-0-0 40	139-0-0 139	40-0-0 40
81-2.4	Marshy Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	9-0-0 9	0-0-0 0	21-0-0 21
81-2.5	Wallace Ck Closed Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
82-1	Junction Meadow on the Kern	0-0-0 0	8-0-0 8	0-7-12 19	0-0-0 0	0-32-77 109	4-6-18 28	0-28-0 28	29-124-6 159
82-2	One mi. < Junction Mdw	0-0-2 2	0-0-3 3	0-0-2 2	0-0-3 3	0-0-2 2	0-0-6 6	0-0-0 0	0-0-0 0
82-3	Three mi. < Junction Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
83-1	Guitar Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
83-2	Timberline Lake Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
83-3	Crabtree R.S. Meadows	4-1-2 7	0-0-0 0	0-0-0 0	5-0-2 7	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
83-4	Upper Crabtree Meadow	307-0-2 309	111-18-0 129	229-15-0 244	0-12-0 12	273-52-0 325	100-0-0 100	23-0-0 23	143-7-0 150
83-5	Lower Crabtree Meadow	10-26-76 112	61-56-39 156	11-38-22 71	72-73-0 145	86-21-40 147	103-0-36 139	88-10-0 98	6-0-0 6
83-6	Crabtree Lakes Meadows	0-0-0 0	28-0-0 28	0-0-0 0	6-0-0 6	0-0-0 0	0-0-0 0	0-0-0 0	51-0-0 51
83-7	Lower Whitney Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-16-0 16	0-30-0 30	0-0-0 0	26-30-29 85	50-68-134 252
83-8	Sandy Meadow	0-1-130 131	4-0-144 148	0-0-108 108	0-0-143 143	0-4-176 180	27-0-168 195	0-0-0 0	0-0-0 0
84-1	Rock Creek R.S. Meadow	0-5-0 5	0-0-0 0	0-0-0 0	18-0-0 18	0-4-0 4	0-0-0 0	0-0-0 0	15-0-0 15
84-2	Lower Rock Ck Xing Mdw	11-0-0 11	7-21-0 28	0-9-96 105	37-30-66 133	36-6-68 110	28-0-0 28	167-10-0 177	0-0-0 0
84-3	Lower Rock Creek Meadows	36-3-0 39	100-0-0 100	0-0-0 0	0-0-0 0	9-41-0 50	52-0-0 52	0-12-0 12	0-34-0 34
84-4	Forgotten Canyon Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	7-0-0 7	0-0-0 0	0-0-0 0
84-5	Guyot Creek Meadows	4-0-0 4	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4	0-0-0 0	0-0-0 0	0-0-0 0
84-6	Siberian Outpost	0-0-0 0	0-0-0 0	0-0-0 0	0-18-0 18	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-1	Sky Blue Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-10	Nathan's Meadow	103-6-90 199	52-32-63 147	55-0-0 55	18-0-66 84	19-0-20 39	21-3-33 57	0-0-0 0	34-0-134 168
85-2	Miter Basin Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-3	Lower Miter Basin Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-7-0 7
85-4	Penned-up Meadow	32-0-39 71	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	17-0-0 17
85-5	Upper Soldier Lake Meadow	0-2-0 2	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-6	Lower Soldier Lake Mdws	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-7	New Army Pass Jct Mdws	19-0-0 19	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-7-0 7
85-8	Lower Rock Creek Lk Mdw	63-0-0 63	21-0-0 21	8-0-21 29	36-16-0 52	10-0-0 10	0-0-0 0	0-0-0 0	0-0-0 0

		2001	2000	1999	1998	1997	1996	1995	1994
85-9	Rock Creek Meadow #2	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	30-0-0 30
86-1	Kern Bridge Camp	0-0-257 257	8-0-37 45	0-0-168 168	60-3-5 68	0-0-88 88	18-0-94 112	41-54-8 103	14-12-94 120
86-2	Upper Funston Meadow	50-37-27 114	14-48-10 72	119-63-140 322	0-13-54 67	19-36-15 70	54-32-87 173	67-78-28 173	130-70-23 223
86-3	Big Arroyo Confluence	0-0-168 168	4-0-0 4	0-0-108 108	0-0-0 0	0-10-0 10	4-0-0 4	0-6-0 6	0-0-0 0
86-4	21" Camp, Rattlesnake Cre	9-0-0 9	12-18-0 30	0-0-32 32	0-0-2 2	14-0-0 14	16-0-3 19	0-0-0 0	48-0-5 53
86-5	Lower Funston Meadow	65-26-0 91	28-2-0 30	171-46-0 217	18-20-0 38	238-120-0 358	108-41-0 149	43-18-0 61	24-38-0 62
86-6	Snake Camp, River Pasture	0-0-0 0	0-18-0 18	126-23-0 149	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4
86-7	Lewis Camp Large Pasture	19-25-630 674	33-0-551 584	222-91-492 805	30-28-383 441	26-116-491 633	29-15-296 340	0-96-122 218	0-28-390 418
86-8	Kern Station Small Pastur	0-12-122 134	4-0-102 106	0-9-92 101	14-0-66 80	20-22-88 130	0-0-46 46	0-0-32 32	0-0-72 72
87-1	Upper Big Arroyo	0-0-0 0	14-0-72 86	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-6-0 6	42-6-42 90
87-10	Sky Parlor Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-6-0 6	0-12-0 12
87-2	Little Upper Big Arroyo	0-0-0 0	7-0-0 7	0-0-0 0	0-0-14 14	0-0-0 0	0-0-0 0	0-0-0 0	0-12-0 12
87-3	Big Arroyo Patrol Cabin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-24 24	0-0-33 33	0-0-77 77	0-0-0 0	0-4-33 37
87-4	Lower Big Arroyo	0-0-0 0	10-0-152 162	0-0-0 0	10-0-0 10	0-4-0 4	0-0-0 0	0-0-0 0	0-4-0 4
87-5	Chagoopa Plateau Mdw #1	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
87-6	Chagoopa Plateau Mdw #2	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	7-0-0 7	0-0-0 0	0-0-0 0
87-7	Chagoopa Plateau Mdw #3	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-3-0 3
87-8	Chagoopa Plateau Mdw #4	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-8-0 8	0-0-0 0	0-0-0 0
87-9	Chagoopa Plateau Treehous	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
88-1	L. Little 5 Lks (Long Lak	10-0-0 10	7-0-0 7	0-0-0 0	0-0-0 0	59-3-0 62	48-8-0 56	51-48-0 99	88-0-0 88
88-2	U. Little 5 Lks (R.S. Mdw	8-3-0 11	0-4-0 4	0-0-0 0	0-0-0 0	0-7-0 7	0-0-0 0	0-0-0 0	0-0-0 0
88-3	Big 5 Lakes Lower Mdw	0-3-0 3	6-4-0 10	0-0-0 0	0-0-0 0	18-0-0 18	0-0-0 0	0-0-0 0	37-0-0 37
88-4	Big 5 Lakes Upper Mdw	16-0-0 16	22-0-0 22	0-0-0 0	0-0-0 0	0-0-0 0	14-0-0 14	51-48-0 99	38-0-0 38
88-5	Big 5 Lakes Upper Stringe	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-1	Spring Lk/Glacier Pass Md	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-10	Cow Camp	0-0-0 0	0-8-85 93	4-0-120 124	0-0-0 0	0-0-99 99	0-0-3 3	0-12-0 12	0-0-165 165
89-11	Laurel Creek Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-12	Crytes Lake	0-0-0 0	0-0-0 0	32-0-0 32	0-0-0 0	0-0-0 0	8-0-0 8	0-0-0 0	0-0-0 0
89-13	Coyote Creek Meadows	0-0-0 0	0-0-0 0	12-0-0 12	0-0-0 0	0-0-0 0	8-0-0 8	17-0-0 17	12-10-0 22
89-2	Upper Lost Canyon Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-80 80	0-0-0 0	0-0-0 0
89-3	Lower Lost Canyon Mdws	13-0-168 181	0-0-100 100	0-0-0 0	0-0-0 0	0-0-99 99	0-0-0 0	0-0-0 0	5-0-0 5
89-4	Soda Creek Canyon	0-0-0 0	11-0-0 11	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-5.1	Forester Lake Bench Mdws	0-3-0 3	22-0-0 22	0-1-0 1	0-0-0 0	0-0-0 0	28-0-0 28	93-0-0 93	139-0-0 139
89-5.2	Forester Lake Meadows	0-0-0 0	0-2-0 2	0-0-0 0	0-0-0 0	9-69-0 78	0-8-0 8	0-0-0 0	0-76-0 76
89-5.3	Forester Lake Pocket Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0

		2001	2000	1999	1998	1997	1996	1995	1994
89-6	Upper Rattlesnake Canyon	0-0-0 0	4-0-3 7	0-1-168 169	0-0-0 0	0-0-0 0	18-0-25 43	0-0-14 14	52-10-3 65
89-7	Shotgun Pass Meadow	13-5-0 18	6-0-0 6	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-8	South Rattlesnake Canyon	28-0-0 28	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	113-0-0 113	0-0-0 0	130-0-0 130
89-9	Middle Rattlesnake Canyon	0-0-152 152	4-8-48 60	0-0-5 5	10-0-133 143	0-0-4 4	18-16-142 176	52-0-0 52	0-34-6 40
90-1	Horse Creek Meadows	0-0-0 0	0-4-0 4	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-10	South Fork Meadow	118-20-0 138	122-18-0 140	60-0-0 60	0-30-0 30	20-102-0 122	193-95-0 288	71-74-0 145	261-189-0 450
90-11	South Fork Pasture	69-38-0 107	100-0-0 100	84-0-0 84	0-0-0 0	80-78-0 158	72-0-0 72	57-0-0 57	24-0-0 24
90-12	Blossom Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-13	Slim's Meadow	0-0-0 0	0-0-138 138	0-0-0 0	110-0-0 110	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-14	Green Meadow	0-0-0 0	0-0-0 0	0-0-0 0	24-0-0 24	50-0-0 50	0-0-0 0	0-15-0 15	0-60-0 60
90-15	Tuohy Meadows	0-33-0 33	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-6-0 6	0-14-0 14
90-16	Summit Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-54-0 54	0-0-0 0	0-0-0 0	0-0-0 0
90-17	Cyclone Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	10-2-0 12	0-0-0 0	0-10-0 10	0-0-0 0
90-18	Summit Lake Meadow	0-10-0 10	0-0-0 0	0-0-0 0	0-0-0 0	15-48-0 63	0-0-0 0	0-63-0 63	0-5-0 5
90-19	Quinn Meadow	0-0-2 2	0-0-7 7	0-0-15 15	0-0-0 0	0-4-15 19	0-0-0 0	0-0-7 7	0-0-0 0
90-2	Ansel Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-3	Evelyn Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-30-0 30
90-4	Cow Camp	0-0-0 0	0-2-0 2	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	81-0-18 99
90-5.1	Hockett Meadow	0-0-342 342	0-2-79 81	0-6-374 380	0-3-264 267	0-26-10 36	120-0-161 281	119-78-41 238	184-15-252 451
90-5.2	Hockett Pasture	0-0-24 24	0-0-308 308	0-0-98 98	0-0-100 100	0-0-169 169	0-0-160 160	0-0-402 402	0-0-0 0
90-6	Sand Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-7	Mitchell Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-8	Tuohy Ck/S. Fk Kaweah	30-0-0 30	0-6-0 6	0-0-0 0	0-0-0 0	226-4-0 230	0-0-0 0	0-0-0 0	0-3-0 3
90-9	Lower South Fork Meadow	0-3-0 3	0-20-0 20	0-0-0 0	20-120-0 140	30-15-0 45	0-0-0 0	0-0-0 0	24-26-0 50
91-1	Ladybug Camp	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-6-0 6
91-2	Whiskey Log Camp	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
91-3	Cahoon Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
92-1	Monarch Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-1-0 1	0-0-0 0	0-0-0 0	0-0-0 0
92-2	Crystal Lakes, Cobalt Lak	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
92-3	Franklin Lakes	0-13-0 13	0-0-0 0	0-1-0 1	8-0-0 8	0-0-0 0	4-0-0 4	0-0-0 0	0-21-0 21
93-1	White Chief Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
93-2	Eagle Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
93-3	Mosquito Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-3-0 3	0-0-0 0	0-0-0 0	0-0-0 0
94-1	Mineral Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4	0-0-0 0
95-1	Redwood Canyon	0-0-0 0	0-0-0 0	0-3-0 3	32-0-0 32	26-14-0 40	0-0-0 0	0-0-0 0	14-0-0 14
96-1	North Fork Kaweah River	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0

